# **Inverse Problems in Heat Transfer**

Wednesday, 16 May, 2018 - Parma, IT

The Italian Union of Thermal-Fluid Dynamics (UIT), together with the University of Parma, are glad to announce the launching of the workshop "Inverse Problems in Heat Transfer" in Parma, IT.

The workshop, supported also by Erasmus+ programme, will start at 10 am on Wednesday 16 May and terminates in the afternoon of the same day.

The workshop aims at providing a forum for researchers to exchange knowledge on inverse problem applied to heat transfer, to discuss with worldwide experts their current research, and to enhance the collaboration between different research areas.

Specific topics include (but are not limited to):

- o Mathematical and Statistical Aspects of Inverse Problems
- Design of Experiments;
- o Applications (e.g., Thermal Imaging, Non-destructive Testing)

Four invited lecturers will give inspiring lectures on various topics related to Inverse Problems in Heat Transfer. They will offer a panoramic view of the field and on the most recent results.

#### **VENUE:**

The workshop will be held at "Centro Congressi S. Elisabetta", Campus Universitario, Università degli studi di Parma, Parco Area delle Scienze, 181, Parma.

### **WORKSHOP CHAIRS:**

Prof Fabio Bozzoli, Prof Giorgio Pagliarini, Prof Sara Rainieri

#### **REGISTRATION AND COSTS:**

The workshop is free but, for organisational reasons, the attendees have to register by 11 May 2018. Number of participants will be a maximum of 50. To register your interest in this event, please email <u>fabio.bozzoli@unipr.it</u>

#### CONTACT INFORMATION:

Prof. Fabio Bozzoli

Department of Engineering and Architecture, University of Parma

Phone: (0521) 905859 - Mail: fabio.bozzoli@unipr.it







## Program:

10:00 /10:15	welcome
10:15/10:45	"Inverse and Optimization Problems in Heat Transfer" Marcelo J. Colaço (Universidade Federal do Rio de Janeiro, Brazil)
10:45/11:15	"Inverse Problems in Bioheat Transfer" Helcio R.B. Orlande (Universidade Federal do Rio de Janeiro, Brazil)
11:15/11:30	break
11:30/12:00	"Inverse Problems and Design Optimization in Thermofluids: a Multidisciplinary Industrial Perspective" Enrico Nobile (ESTECO SpA,Trieste, Italy)
12:00/12:30	"Thermal imaging of longitudinal defects in the internal coating of a tube" Gabriele Inglese (Consiglio Nazionale delle Ricerche, Firenze, Italy)
12:30/14:00	lunch
14:00/15:00	Young scientists section:  - Luca Cattani (Università di Parma): "Estimation of the local space and time varying heat flux inside a pulsating heat pipe by the Tikhonov regularisation method"  - Pamela Vocale (Università di Parma): "Inverse heat transfer modeling applied to the estimation of the apparent thermal conductivity of an intumescent fire retardant paint"  - Andrea Mocerino (Università di Parma): "Shape Optimisation of Displaced Enhancement Devices for Heat Transfer Augmentation by Inverse Problem Approach Applied to Infrared Images"